

**REMARKS**

This responds to the Final Office Action dated December 4, 2009.

Claims 1 and 24 are amended, no claims are canceled or added; as a result, claims 1-10, 24, 26-35 and 38 are now pending in this application.

***Interview Summary***

Applicant's representative greatly appreciates the courtesy extended by Examiner Stocklosa in the telephonic interview on February 12, 2010. In the interview the claims, rejections and the Carner reference discussed. Proposed amendments were discussed including one or both of a connector for electrically connecting the impedance monitoring conductive sleeve with an impedance monitoring device as well as conductive sleeves constructed with conductive coatings. The Examiner stated he would consult with Examiner Evanisko, the signing Examiner on the Office Action. A follow up call was received from the Examiner on February 17, 2010 clarifying the discussion after consulting with Examiner Evanisko. The Examiner indicated that the proposed amendments previously discussed could overcome the art of record, but reserved the right to further review the art of record and perform a follow up search.

**The Rejection of Claims Under § 102**

Claims 1-5, 9-10, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Carner (U.S. Patent No. 6,253,111). Applicant respectfully traverses the rejections of claims 1-5, 9, 10 and 34 for at least the following reasons. Applicant cannot find all of the recited features of claim 1 in the cited reference. For example, the cited reference does not include:

at least one impedance monitoring conductive sleeve disposed within the insulating layer, the at least one impedance monitoring conductive sleeve continuously surrounds the conductor and extends continuously along the conductor from the proximal end to at least the intermediate portion, wherein the at least one impedance monitoring conductive sleeve is physically isolated and electrically isolated from the electrode and the conductor, and the impedance monitoring conductive sleeve is a coating of conductive material. Claim 1.

Claims 2-5, 9, 10 and 34 depend from claim 1 and thereby include all of its recitations. Instead, Carner shows in Figure 4 and describes at column 3, lines 29-40:

The first conductor 48 is formed as a *coiled conductor* . . . Thus, in the event that abrasion occurs through the outer sheathing 21 of the multilumen inner tube, the first conductor 48 would act to stop such abrasion without jeopardizing the second and third conductors, 44 and 46, disposed internally thereof. The first conductor 48 is preferably a (DFT) drawn-filled inner tube type conductor. (Emphasis added).

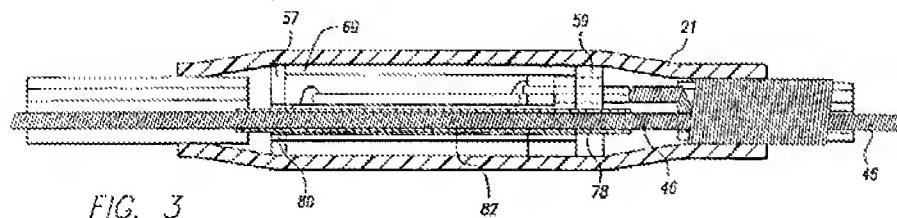


FIG. 3

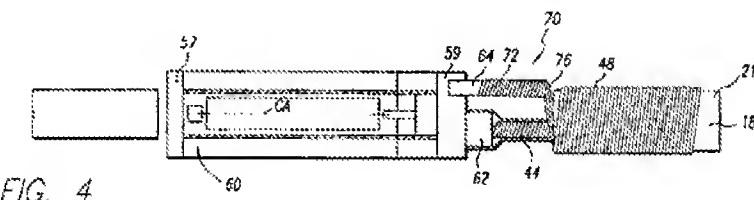


FIG. 4

Figures 3 and 4 of Carner

Applicant respectfully submits the coiled conductor 48 is not equivalent to an impedance monitoring conductive sleeve that is a coating of conductive material. As stated in Carner (see above), the first conductor 48 is a coiled conductor, and as a coiled conductor, first conductor 48 protects the second and third conductors 44, 46 from abrasion. Carner further states at column 1, lines 55-58, “An advantage of this arrangement is to provide a multiconductor lead body having a design which resists mechanical damage, in particular abrasion.” Stated another way, Carner uses a coiled conductor to provide a robust covering for the inner conductors against abrasion.

In contrast, the coating of conductive material recited in claim 1 provides a thin and flexible sleeve used to detect damage in the lead insulation. The impedance monitoring conductive sleeve of claim 1 uses the coating of conductive material to minimize the lead diameter while still providing impedance monitoring capability. Incorporation of a coiled

conductor, such as the coiled conductor 48 of Carner, would instead *undesirably enlarge the lead assembly* for the purpose of increasing abrasion resistance.

Because Carner fails to show each of the recited features of claim 1 and further fails to show these features in as complete detail as in the claim the anticipation rejections of claims 1-5, 9, 10 and 34 should be withdrawn.

Reconsideration and allowance of claims 1-5, 9, 10 and 34 are respectfully requested.

*The Rejection of Claims Under § 102/103*

Claims 24, 26-29, 32-33, 35, and 38 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Carner as applied above. Applicant respectfully traverses the rejections of claims 24, 26-29, 32, 33, 35 and 38 for at least the following reasons. Applicant cannot find all of the recited features of claim 24 in the cited reference by itself or as modified in the Final Office Action. For example, the cited reference does not include:

at least one impedance monitoring conductive sleeve interposed between the lead body exterior and the conductor, the at least one impedance monitoring conductive sleeve at least partially surrounds the conductor, the at least one impedance monitoring conductive sleeve continuously extends along the conductor from the proximal end to at least the intermediate portion, wherein the at least one impedance monitoring conductive sleeve is physically isolated and electrically isolated from the electrode and the conductor, and the conductive sleeve is a conductive coating. Claim 24.

Claims 26-29, 32, 33, 35 and 38 depend from claim 24 and thereby include all of its recitations. As previously described above, Carner shows in Figure 4 and describes at column 3, lines 29-40:

*The first conductor 48 is formed as a *coiled conductor* . . . Thus, in the event that abrasion occurs through the outer sheathing 21 of the multilumen inner tube, the first conductor 48 would act to stop such abrasion without jeopardizing the second and third conductors, 44 and 46, disposed internally thereof. The first conductor 48 is preferably a (DFT) drawn-filled inner tube type conductor. (Emphasis added).*

Applicant respectfully submits the coiled conductor 48 is not equivalent to an impedance monitoring conductive sleeve that is a conductive coating. As stated in Carner (see above), the first conductor 48 is a coiled conductor, and as a coiled conductor, first conductor 48 protects the second and third conductors 44, 46 from abrasion. Carner further states at column 1, lines 55-58, “An advantage of this arrangement is to provide a multiconductor lead body having a design

which resists mechanical damage, in particular abrasion.” Stated another way, Carner uses a coiled conductor to provide a robust covering for the inner conductors against abrasion.

In contrast, the conductive coating recited in claim 24 provides a thin and flexible sleeve used to detect damage in the lead insulation. The impedance monitoring conductive sleeve of claim 24 uses the conductive coating to minimize the lead diameter while still providing impedance monitoring capability. As described above with regard to claim 1, incorporation of a coiled conductor, such as the coiled conductor 48 of Carner, would instead *undesirably enlarge the lead assembly* for the purpose of increasing abrasion resistance.

Because Carner fails to show each of the recited features of claim 24 and further fails to show these features in as complete detail as in the claim the anticipation (or alternatively obviousness) rejections of claims 24, 26-29, 32, 33, 35 and 38 should be withdrawn.

Reconsideration and allowance of claims 24, 26-29, 32, 33, 35 and 38 are respectfully requested.

*The Rejection of Claims Under § 103*

Claims 6-8 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carner as applied above. Applicant respectfully traverses the rejections of claims 6-8 and 30-31 for at least the following reason. Claims 6-8 and 30-31 are at least allowable as dependent claims of claims 1 and 24, respectively. Claims 6-8 and 30-31 thereby include each of the recitations of respective claims 1 and 24 and are correspondingly allowable.

Reconsideration and allowance of claims 6-8 and 30-31 are respectfully requested.

**CONCLUSION**

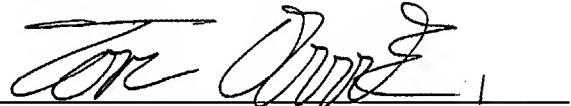
Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 371-2117 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Date February 18, 2010

By 

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 18th day of February, 2010.

Nellie Nuhring

Name



Signature